NEYER, TISEO & HINDO, LTD.
CONSULTING ENGINEERS
30999 Ten Mile Road • Farmington Hills, Michigan 48024 • (313) 471-0750

October 26, 1984
Project No. 84272 OG

B & V Construction Company
25301 Novi Road
Novi, Michigan 48050

Attn: Mr. Donald J. Treder

Re: Permeability Evaluation
of Clay Cap
BASF Wyandotte-Riverview Landfill
Riverview, Michigan

Dear Mr. Treder:

In accordance with your request, we have reviewed the evaluation test data for Bag Number 12 clay cap material (from Ottowa Silica Sand Company in Rockwood, Michigan) with respect to permeability of clay fill that is compacted to less than 90 percent of the Modified Proctor value. This is of concern, because it is reported that within a localized area, the clay cap material could only be compacted to about 87 percent of the Modified Proctor value because of instability in the subgrade condition. It is understood that the clay fill was placed at approximately the optimum moisture content.

Our test data (reported in October 25, 1984 letter) indicated that a sample of this clay material compacted to 90 percent of the Modified Proctor value at approximately the optimum moisture content has a permeability on the order of 2.2×10^{-8} cm/sec. Since permeability in compacted clay is generally more sensitive to moisture content than minor changes in the degree of compaction, it is our opinion that the same material compacted to about 87 percent at approximately the optimum moisture value can be expected to have a permeability of slightly higher than 2.2×10^{-8} cm/sec but less than the required value of 1×10^{-7} cm/sec.

If you have any questions about the matter or require additional studies, please call.

Very truly yours,

NEYER, TISEO & HINDO, LTD.

D. Nona, P.E.
DN/tal